

## CLAIMS

What is claimed is:

1. A code arrangement on a computer readable medium that, when read by a machine, causes the machine to parse a command string resulting in the execution of the commands, the code arrangement comprising:

a command processor code portion for processing at least one command string having a command-name and at least one parameter;

at least one parameter-handler code portion associated with said at least one parameter and adapted for processing said at least one parameter; and

at least one syntax store for storing a plurality of syntax descriptions for a set of said command strings and for storing associations between said parameters and said parameter-handler code portions;

said command processor code portion syntax processing said command string using said syntax descriptions and said parameter-handler code portions.

2. The code arrangement of Claim 1 wherein said command processor code portion processing said command string by finding a match between one of said syntax descriptions and said command-string to determine syntactical validity of the said command string and if at least one of said parameter-handler code portions needs to be invoked.

3. The code arrangement of Claim 2 wherein said command processor code portion transmitting at least one parameter to said parameter-handler code portion, each of said parameter-handlers returning at least one information unit to said command processor code portion upon successful processing of said at least one parameter.

4. The code arrangement of Claim 3 wherein said command processor code portion is operable to invoke a code arrangement designed to receive a list of one or more said information units, said command processor code portion processing said command by passing said information unit received from said parameter-handler to said code arrangement designed to receive said list of one or more information units.

5. The code arrangement of Claim 1 wherein said parameters are received as an input to said command processor code portion from a user through a command-line interface.

6. The code arrangement of Claim 1 wherein said parameters are received as an input to said command processor code portion from a software module other than said command processor code portion.

7. The code arrangement of Claim 1 wherein said syntax store is stored on a computer readable media, said computer readable media being at least one of a magnetic storage medium, a file stored in an electronic memory, a file stored on an optical memory, and a data structure stored in a memory.

8. The code arrangement of Claim 1 wherein said command processor further comprises:

a command parser for parsing a plurality of said parameters using said syntax descriptions, said command parser finding a best match between a plurality of parsed parameters with said syntax descriptions sourced from said syntax store.

9. The code arrangement of Claim 1 wherein said syntax store is configurable by the user by editing one or more of existing said syntax descriptions and adding newer said syntax descriptions to said syntax store.

10. The code arrangement of Claim 1 wherein said parameter-handler returns an indicator for unsuccessful processing of said command-string to said command processor.

11. The code arrangement of Claim 1 wherein one or more of said at least parameter-handler code portion is an internal parameter-handler code portion.

12. The code arrangement of Claim 1 wherein said command processor allows execution of said command after at least one of a security validation, license validation, and additional screening.

13. The code arrangement of Claim 12 wherein said security screening procedure is based upon at least one of a user rights validation, user authentication and security key checking.

14. The code arrangement of Claim 12 wherein each said security screening being performed using at least one of said parameters.

15. The code arrangement of Claim 1 wherein an operating environment is a JAVA-based object-oriented environment and said command processor and said parameter-handlers are JAVA code portions.

16. The code arrangements of Claim 1 wherein said parameter-handler and said internal parameter-handler code portions are parsers.

17. The code arrangement of Claim 1 further comprising:

at least one action handler code portion associated with at least one root syntax, said syntax root being one of said syntax descriptions, wherein said action handler code portion being adapted for processing at least one command.

18. An apparatus for executing commands directed to a computer system, the apparatus comprising:

command processing means for processing a received command-string having at least one command name and at least one parameter;

at least one parameter handling means for processing said at least one parameter, said parameter handling means associated with said at least one parameter, said command processing being operatively connected to said at least one parameter handling means; and

a memory to store at least one syntax description for a set of commands;

said command processing means processing and executing said commands using said at least one syntax description and said at least one said parameter handling means.

19. The apparatus of Claim 18 wherein said parameter handling means is a plug-in module.

20. The apparatus of Claim 18 wherein said command processing means further comprises:

a usage handler for interacting with the user in case of said command string failing to match with any one of said syntax descriptions.

21. The apparatus of Claim 18 wherein said usage handler is operable to output a help message about the correct usage of the said syntax description which most closely resembled the said command-string, derived from said means for storing syntax descriptions.

22. The apparatus of Claim 18 wherein contents of said memory comprise:  
at least one syntax root fragment.

23. The apparatus of Claim 22 wherein said syntax fragment comprises:  
at least one syntax leaf node selected from a parameter, keyword, and another nested syntax fragment;

24. The apparatus of Claim 22 wherein said syntax root fragment comprises:  
an action name representing a code portion invoked by said command processing means for processing said command.

25. A method for processing command-strings in an object-oriented environment comprising:

parsing a command-string that includes a command-name and one or more parameters;

retrieving at least one syntax description from a syntax store, said syntax description including references to one or more parameter-handlers;

matching said command-name and said one or more parameters with said at least one syntax description to identify one or more corresponding parameter-handlers; and

processing said one or more parameters using the identified one or more parameter-handlers to produce one or more corresponding information units.

26. The method of Claim 25 further comprising:

preparing a list of the one or more information units resulting from the processing step;

calling a code arrangement designed to receive a list of one or more said information units; and

passing said list resulting from the preparing step to said code arrangement.

27. The method of Claim 25 further comprising:

outputting an error message where said matching is unsuccessful.

28. The method of Claim 27 further comprising:

outputting a help message and a command usage description for a syntax description that most closely matched said command string, said syntax description being sourced from said syntax descriptions.

29. The method of Claim 25 further comprising:

applying reflection to determine which of plural action handler code portions to invoke based on successfully matched said syntax descriptions.